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EXAMINER

BAUGH, APRIL L

ART UNIT	PAPER NUMBER
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2141

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

10/718,743

Applicant(s)

DUARTE ET AL.

Examin r

April L Baugh

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-- Th MAILING DATE of this communication app ars on the c v r she t with the correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claim 3 objected to because of the following informalities: on page 44, lines 2 and 3, “first” should read “second”. Appropriate correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 23, and 9-10 rejected under 35 U.S.C. 102(e) as being unpatentable by US Publication 2004/0185922 to Sutton et al.

Regarding claims 1, Sutton et al. teaches a data processing device and apparatus having a first operational mode and a second operational mode, the data processing device comprising: a plurality of control elements to perform a first plurality of defined functions when the data processing device is in the first operational mode and to perform a second plurality of defined function when the data processing device is in the second operational mode (page 1, section 0006 and 0009 and page 2, section 0011 and page 3, section 0021 and 0023 and 0025), wherein the first operational mode is associated with a first physical orientation of the data processing device and the plurality of control elements and the second operational mode is associated with a second

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physical orientation of the data processing device and the plurality of control elements (page 1, section 0005 and page 2, section 0020).

Regarding claim 23, Sutton et al. teaches a data processing device having a data entry mode and a telephony mode comprising: a first group of control elements to perform data entry functions within a first physical orientation when the data processing device is in the data entry mode (page 1, section 0005-0006 and page 2, section 0020 and page 3, section 0023) and to perform numeric telephony keypad functions within a second physical orientation when the data processing device is in the telephony mode (page 1, section 0009 and page 2, section 0011 and page 3, section 0021 and 0025).

Regarding claim 9, Sutton et al. teaches the data processing device as in claim 1 wherein the plurality of control elements includes a control wheel for moving a graphical cursor element when rotated in either the first operational mode and/or the second operational mode (page 1, section 0009 and page 3, section 0022).

Regarding claim 10, Sutton et al. teaches the data processing apparatus as in claim 9 wherein the plurality of control elements includes a plurality of keys and/or buttons (page 3, section 0022 and 0027).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 11, 14-18, and 24 rejected under 35 U.S.C. 103(a) as being unpatentable over US Publication 2004/0185922 to Sutton et al. in view of England (US 6483445).

Regarding claim 11, Sutton et al. teaches a data processing apparatus having a first operational mode and a second operational mode comprising: a first group of control elements to perform a first predefined set of functions in a first orientation associated with the first operational mode and to perform a second predefined set of functions in a second orientation associated with the second operational mode (page 1, section 0005 and 0006 and 0009 and page 2, section 0020).

Sutton et al. does not teach a display to render images having a first image orientation associated with the first operational mode, and a display to render images having a second image orientation associated with the second operational mode. England teaches a display to render images having a first image orientation associated with the first operational mode, and a display to render images having a second image orientation associated with the second operational mode (page 3, lines 13-21). Therefore it would have been obvious to one of ordinary skill in the art to modify the multipurpose data processing apparatus of Sutton et al. by a display to render images having a first image orientation associated with the first operational mode, and a display to render images having a second image orientation associated with the second operational mode because this enables the user to still view the display in an upright position regardless of the orientation of the device and thus makes the device more user friendly.

Regarding claim 2 and 24, Sutton et al. teaches the data processing device as in claim 1 and 23 (page 1, section 0005 and 0006 and 0009 and page 2, section 0020).

Sutton et al. does not teach further comprising: a display having a viewable display screen for rendering images generated by the data processing device, the display screen rendering images in a first orientation when the data processing device is in the first operational mode and rendering images in a second orientation when the data processing device is in the second operational mode. England teaches further comprising: a display having a viewable display screen for rendering images generated by the data processing device, the display screen rendering images in a first orientation when the data processing device is in the first operational mode and rendering images in a second orientation when the data processing device is in the second operational mode (page 3, lines 13-21). Therefore it would have been obvious to one of ordinary skill in the art to modify the multipurpose data processing apparatus of Sutton et al. by further comprising: a display having a viewable display screen for rendering images generated by the data processing device, the display screen rendering images in a first orientation when the data processing device is in the first operational mode and rendering images in a second orientation when the data processing device is in the second operational mode because this enables the user to still view the display in an upright position regardless of the orientation of the device and thus makes the device more user friendly.

Regarding claim 14, Sutton et al. teaches the data processing apparatus as in claim 11 further comprising: a second group of control elements to perform a third predefined set of functions in a first orientation associated with the first operational mode and to perform a fourth predefined set of functions in a second orientation associated with the second operational mode (page 1, section 0005, 0006, 0009 and page 2, section 0020 and page 3, section 0022 and 0027 and fig.2a).

Regarding claim 15, Sutton et al. teaches the data processing apparatus as in claim 14 wherein the display is configured on the data processing apparatus between the first group of control elements and the second group of control elements (page 3, section 0022 and 0027 and fig.2a).

Regarding claim 16, Sutton et al. teaches the data processing apparatus as in claim 14 wherein the display is rotatably coupled to the data processing apparatus to rotate from a first position in which it is positioned between the first group of control elements and the second group of control elements to a second position in which it exposes a third group of control elements positioned between the first group of control elements and the second group of control elements (fig. 2a and 2b and page 1, section 0005 and page 3, section 0022 and 0027).

Regarding claim 17, Sutton et al. teaches the data processing apparatus as in claim 11 wherein the display is rotatably coupled to the data processing apparatus to rotate from a first position in which it covers a third group of control elements to a second position in which it exposes the third group of control elements (fig. 2a-2b and 3a-3c and page 1, section 0005 and page 3, section 0022 and 0027 and page 4, section 0029-0030).

Regarding claim 18, Sutton et al. teaches the data processing apparatus as in claim 17 wherein the third group of control elements comprise an alphanumeric keyboard (page 3, section 0022 and 0027).

5. Claims 3-8 and 27-28 rejected under 35 U.S.C. 103(a) as being unpatentable over US Publication 2004/0185922 to Sutton et al. in view of Okawa (US 2004/0259599).

Regarding claim 3, Sutton et al. teaches the data processing device as in claim 1 (page 1, section 0005 and 0006 and 0009 and page 2, section 0020).

Sutton et al. does not teach the control elements comprise: a first glyph representing a designated one of the first specified functions, the first glyph being highlighted when the data processing device is in the first operational mode; and a second glyph representing a designated one of the second specified functions, the first glyph being highlighted when the data processing device is in the first operational mode. Okawa teaches wherein one or more of the control elements comprise: a first glyph representing a designated one of the first specified functions, the first glyph being highlighted when the data processing device is in the first operational mode; and a second glyph representing a designated one of the second specified functions, the first glyph being highlighted when the data processing device is in the first operational mode (fig. 7a and 7b and page 1, section 0017 and page 3, section 0070 and page 4, section 0072-0073).

Therefore it would have been obvious to one of ordinary skill in the art to modify the multipurpose data processing apparatus of Sutton et al. by the control elements comprising: a first glyph representing a designated one of the first specified functions, the first glyph being highlighted when the data processing device is in the first operational mode; and a second glyph representing a designated one of the second specified functions, the first glyph being highlighted when the data processing device is in the first operational mode because this reduces the space required for all functional keys of a multipurpose device and thus allows the device to be smaller and more portable.

Regarding claim 4, Sutton et al. teaches the data processing device as in claim 3 (page 1, section 0005 and 0006 and 0009 and page 2, section 0020).

Sutton et al. does not teach wherein each of the first glyphs are positioned on each of the control elements in a first orientation corresponding to the first orientation of the data processing

device and each of the second glyphs are positioned on each of the control elements in a second orientation corresponding to the second orientation of the data processing device. Okawa teaches wherein each of the first glyphs are positioned on each of the control elements in a first orientation corresponding to the first orientation of the data processing device and each of the second glyphs are positioned on each of the control elements in a second orientation corresponding to the second orientation of the data processing device (fig. 7a and 7b and page 1, section 0017 and page 3, section 0070 and page 4, section 0072-0073). Therefore it would have been obvious to one of ordinary skill in the art to modify the multipurpose data processing apparatus of Sutton et al. by wherein each of the first glyphs are positioned on each of the control elements in a first orientation corresponding to the first orientation of the data processing device and each of the second glyphs are positioned on each of the control elements in a second orientation corresponding to the second orientation of the data processing device because this reduces the space required for all functional keys of a multipurpose device and thus allows the device to be smaller and more portable.

Regarding claim 27, Sutton et al. teaches the data processing apparatus as in claim 23 (page 1, section 0005 and 0006 and 0009 and page 2, section 0020).

Sutton et al. does not teach wherein one or more of the first group of control elements comprise: a first glyph having a first glyph orientation associated with the first orientation; and a second glyph having a second glyph orientation associated with the second orientation. Okawa teaches wherein one or more of the first group of control elements comprise: a first glyph having a first glyph orientation associated with the first orientation; and a second glyph having a second glyph orientation associated with the second orientation (fig. 7a and 7b and page 1, section 0017

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and page 3, section 0070 and page 4, section 0072-0073). Therefore it would have been obvious to one of ordinary skill in the art to modify the multipurpose data processing apparatus of Sutton et al. by wherein one or more of the first group of control elements comprise: a first glyph having a first glyph orientation associated with the first orientation; and a second glyph having a second glyph orientation associated with the second orientation because this reduces the space required for all functional keys of a multipurpose device and thus allows the device to be smaller and more portable.

Regarding claim 28, Sutton et al. teaches the data processing apparatus as in claim 27 (page 1, section 0005 and 0006 and 0009 and page 2, section 0020).

Sutton et al. does not teach wherein the data processing device highlights the first glyph when in the first operational mode and highlights the second glyph when in the second operational mode. Okawa teaches wherein the data processing device highlights the first glyph when in the first operational mode and highlights the second glyph when in the second operational mode (fig. 7a and 7b and page 1, section 0017 and page 3, section 0070 and page 4, section 0072-0073). Therefore it would have been obvious to one of ordinary skill in the art to modify the multipurpose data processing apparatus of Sutton et al. by wherein the data processing device highlights the first glyph when in the first operational mode and highlights the second glyph when in the second operational mode because this reduces the space required for all functional keys of a multipurpose device and thus allows the device to be smaller and more portable.

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Regarding claim 5 and 26, Sutton et al. teaches the data processing device as in claim 4 wherein the first orientation is rotated 90 degrees relative to the second orientation (page 2, section 0012 and page 3, section 0024 and page 4, section 0028).

Regarding claim 6, Sutton et al. teaches the data processing device as in claim 3 wherein the first operational mode comprise: a data entry mode and wherein the second operational mode comprises a telephony mode wherein the data processing device performs telephony-based functions (page 1, section 0006 and 0009 and page 2, section 0011).

Regarding claim 7, Sutton et al. teaches the data processing device as in claim 6 wherein, when in the telephony mode, the second specified function for a group of the control elements is that of a numeric keyboard for entering telephone numbers (page 1, section 0005 and page 3, section 0021).

Regarding claim 8, Sutton et al. teaches the data processing device as in claim 7 wherein, when in the data entry mode, the first specified function for a group of the control elements is that of a cursor control keypad (page 3, section 0022-0023 and 0027).

6. Claims 12, 13, 20, and 25 rejected under 35 U.S.C. 103(a) as being unpatentable over US Publication 2004/0185922 to Sutton et al. in view of England (US 6483445) as applied to claim 2, 11, 14-18, and 24 above, and further in view of Okawa (US 2004/0259599).

Regarding claim 19, Sutton et al. in view of England teaches the data processing apparatus as in claim 11 (page 1, section 0005 and 0006 and 0009 and page 2, section 0020 of Sutton et al.).

Sutton et al. in view of England does not teach wherein one or more of the first group of control elements comprise: a first glyph having a first glyph orientation associated with the first orientation; and a second glyph having a second glyph orientation associated with the second orientation. Okawa teaches wherein one or more of the first group of control elements comprise: a first glyph having a first glyph orientation associated with the first orientation; and a second glyph having a second glyph orientation associated with the second orientation (fig. 7a and 7b and page 1, section 0017 and page 3, section 0070 and page 4, section 0072-0073). Therefore it would have been obvious to one of ordinary skill in the art to modify the multipurpose data processing apparatus of Sutton et al. in view of England by wherein one or more of the first group of control elements comprise: a first glyph having a first glyph orientation associated with the first orientation; and a second glyph having a second glyph orientation associated with the second orientation because this reduces the space required for all functional keys of a multipurpose device and thus allows the device to be smaller and more portable.

Regarding claim 21, Sutton et al. in view of England teaches the data processing apparatus as in claim 19 (page 1, section 0005 and 0006 and 0009 and page 2, section 0020 of Sutton et al.).

Sutton et al. in view of England does not teach wherein the data processing device highlights the first glyph when in the first operational mode and highlights the second glyph when in the second operational mode. Okawa teaches wherein the data processing device highlights the first glyph when in the first operational mode and highlights the second glyph when in the second operational mode (fig. 7a and 7b and page 1, section 0017 and page 3, section 0070 and page 4, section 0072-0073). Therefore it would have been obvious to one of

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ordinary skill in the art to modify the multipurpose data processing apparatus of Sutton et al. in view of England by wherein the data processing device highlights the first glyph when in the first operational mode and highlights the second glyph when in the second operational mode because this reduces the space required for all functional keys of a multipurpose device and thus allows the device to be smaller and more portable.

Regarding claim 12, 13, 20, and 25, Sutton et al. teaches the data processing device as in claim 4 wherein the first orientation is rotated 90 degrees relative to the second orientation (page 2, section 0012 and page 3, section 0024 and page 4, section 0028).

Regarding claim 22, Sutton et al. teaches the data processing device as in claim 19 wherein the first operational mode comprise: a data entry mode and wherein the second operational mode comprises a telephony mode wherein the data processing device performs telephony-based functions (page 1, section 0006 and 0009 and page 2, section 0011).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to further show the state of the art with respect to multipurpose data processing apparatus in general: Tornaghi and Lai et al.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to April L Baugh whose telephone number is 571-272-3877. The examiner can normally be reached on Monday-Friday 9:00am-5:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 571-272-3880. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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SUPERVISORY PATENT EXAMINER